

WHAT IS CLAIMED IS:

1. An ammunition cartridge comprising:
  - a projectile having a projectile base diameter;
  - a sabot partially surrounding the projectile; and
  - a case partially containing the projectile and the sabot, the case comprising a body section, a conical form, and a neck; and having a maximum outer diameter;wherein the cartridge has a maximum length of about 34 millimeters.
2. The ammunition cartridge of claim 1, wherein the ratio of the case maximum outer diameter to the projectile base diameter is approximately 1.89.
3. The ammunition cartridge of claim 1, wherein the ratio of the case body outer diameter to the outer diameter of the neck is in the range of from about 1.1 to about 1.4.
4. The ammunition cartridge of claim 3 wherein the ratio of the outer body diameter to the outer neck diameter is about 1.27.
5. The ammunition cartridge of claim 1 wherein the case has a maximum length of about 24 millimeters.
6. The ammunition cartridge of claim 1 wherein the case has a maximum outer diameter of about 10.8 millimeters.
7. The ammunition cartridge of claim 1 wherein the conical form has a slope angle  $\theta$  measured from the longitudinal axis of the case in the range of from about 28 to about 32 degrees that transitions from a larger diameter of the body to a smaller diameter of the neck.

8. The ammunition cartridge of claim 7, wherein  $\theta$  is about 30 degrees.
9. The ammunition cartridge of claim 1, wherein the neck has an outer diameter of about 8.51 millimeters and an inner diameter of about 7.82 millimeters.
10. The ammunition cartridge of claim 1, wherein the projectile base diameter is in the range of from about 5 to about 6 millimeters.
11. The ammunition cartridge of claim 10, wherein the projectile base diameter is about 5.7 millimeters.
12. The ammunition cartridge of claim 1, wherein the case is made from a material selected from the group consisting of brass and steel.
13. The ammunition cartridge of claim 1, wherein the sabot is made from a material selected from the group consisting of thermoplastic and thermoset plastics.
14. A weapon dimensioned to accept and fire a cartridge having a maximum length of about 34 millimeters and comprising a projectile having a base diameter ranging from 5 to 6 millimeters, a sabot partially surrounding the projectile, and a necked case comprising a body section having a maximum outside body diameter and a neck having an outside neck diameter and the case containing the projectile and the sabot, wherein the ratio of the maximum outside body diameter to the outside neck diameter is in the range from about 1.1 to about 1.4, and wherein the weapon chamber is dimensioned to a tolerance in the range of from about 3 one thousandths of an inch to about 9 one thousandths of an inch.

15. The weapon of claim 14, wherein the weapon chamber is dimensioned to a tolerance in the range of from about 3 one thousandths of an inch to about 4 one thousandths of an inch.

16. The weapon of claim 13, wherein the weapon chamber is dimensioned to a tolerance of about 4 one thousandth's of an inch.

17. An handgun cartridge comprising a necked case containing a projectile encased by a sabot, wherein the ratio of the maximum outer diameter of the necked case to the base diameter of the projectile is approximately 1.89.

18. The handgun cartridge of claim 17, wherein the cartridge has a maximum length of about 34 millimeters.